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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,518	09/14/2004	Fumikazu Machino	041230-0311798	1173

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EXAMINER

GOFMAN, ANNA

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/507,518

Applicant(s)

MACHINO, FUMIKAZU

Examiner

Anna Gofman

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/14/04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Election/Restrictions

1. Applicant's election without traverse of Group I in the reply filed on March 27, 2006 is acknowledged. Claims 18-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim.

DETAILED ACTION

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Machino et al. (WO 98/38140, equivalent to US 6,855,398) in view of Dieck et al. (US 4,026,839).

Machino et al. teach utilizing carbon fibers to provide a thermal-acoustic insulation material having excellent fireproofness. The material of the present invention comprises a wool-like carbon fiber aggregate composed of fibers having an average fiber diameter of 0.5 μm to 5 μm and an average fiber length of 1 mm to 15 mm. The fibers are bonded by a thermosetting resin (Abstract). The carbon fibers comprise anisotropic pitch as a material (col.5 lines 18-19). Among thermosetting resins which may be employed are phenolic resins which comprise from about 10wt.% to 40wt.% of the material (col.17 lines 20-25).

Machino et al. fail to teach a fire resistant agent which is comprised in said binder resin made of a silicone compound comprising two functional groups. Dieck et al. are drawn to polyphosphazene polymer/silicone rubbers blends. Dieck et al. teach that these blends are extremely fire retardant can be formed into coatings, sheets or films(Abstract). Poly(organosiloxane) elastomers are crosslinkable. The cross-linking agent should possess two or more groups which will react with functional groups on the poly(organosiloxane). Examples of functional groups attached to silicon atoms include hydroxyl, alkoxyl, e.g. Suitable cross-linking agents reactive with hydroxyl groups attached to a silicon include amino groups (col.4 lines 3-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the silicone blend of Dieck et al. into the binder resin of Machino et al., motivated to produce great fire resistance. It would also have been obvious to one having ordinary skill in the art at the time the invention was made to use the above mentioned reactive functional groups as the fire resistant agents, motivated to produce excellent fire retardance, as taught by Dieck et al., in the invention of Machino et al.

Further, Machino et al. teach the amount of the binder resin to be from about 10wt.% to 40wt.% of the material. Dieck et al. teach that the preferable amount of the fire retardant poly(organosiloxane) blend is about between 20 wt.% to 80 wt.% (col.6 lines 10-11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to select the desired weight through the process of routine experimentation in order to arrive at values which offered the optimum fire resistance in the invention of Machino et al. Therefore, claims 1-17 are rejected.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition to the references provided by Applicant, the following documents are considered pertinent to Applicant's invention:

WO 01/62829 teaches an epoxy-functional polysiloxane modified phenolic resin composition.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Gofman whose telephone number is (571) 272-7419. The examiner can normally be reached on Mon.-Fri. 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anna Gofman
Examiner
Art Unit 1771

AG

Conclusion

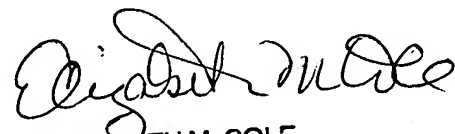
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ELIZABETH M. COLE
PRIMARY EXAMINER